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09/930,375	08/15/2001	Indermohan S. Monga	120-178	9204

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EXAMINER	
PATEL, ASHOKKUMAR B	
ART UNIT	**PAPER NUMBER**
2154	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/930,375	MONGA ET AL.	
	Examiner	Art Unit	
	Ashok B. Patel	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) *8,13,20 and 32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7, 9-12, 14-19, 21-31 and 33-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-38 are subject to examination. Claims 8, 13, 20 and 32 have been cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/21/2007 has been entered.

Response to Arguments

3. Applicant's arguments filed 06/21/2007 have been fully considered but they are not persuasive for the following reasons:

Rejections under 35 U.S.C. § 102

Applicant's argument:

"The Office asserts that this feature is taught by Weldon at column 11, lines 21-42. Applicant respectfully traverses. The cited passage specifically teaches that the action taken is "dispatching a trouble-shooting technician to identify a source of the problem or adjusting software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network."~ Dispatching a trouble-shooting technician to identify the source of the problem is a slow, manual response that does not even include replacement services. As described in the

Specification at page 12, lines 10-11, ASON can provide practically any communication service that has traditionally been performed manually. For applications where restoration time is critical, dispatching a technician to repair the problem is not a practical solution. Claim 1 as amended therefore distinguishes Weldon by reciting "to provide replacement services without manual intervention."2 Withdrawal of the rejection of claim 1 is therefore requested."

Examiner's response:

Weldon teaches at col. 6, line 54-67, "The VPNOC 221 hosts the QVPN builder, which is a software-based mechanism used to configure VPN topology, set security profiles and distribute keys to each VPN site in an automatic fashion. Consequently, adding new VPN sites or adding more tunnels to the VPN is quickly performed since all of the probing routers may be adjusted in operation by control instructions sent from the QVPN builder. Accordingly, network operators do not need to manually secure IPSec tunnels for each of the IP nodes required to communicate over the VPN. By employing the VPN builder in the network architecture as shown with the use of VPN probing routers 207 and 203 and other probing routers, it is possible to easily scale a VPN according to customer requirements.

And as stated in the above arguments that column 11, lines 21-42 of Weldon offers an alternative that does not require manual intervention which is " or adjusting software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network.

Thus, Weldon does teach "to provide replacement services without manual intervention."

Applicant's argument:

"For example, claim 3 recites that the optical service logic is operably coupled to monitor and analyze a connection in real-time for determining SLA compliance. The Office asserts that this feature is taught by Weldon at column 4, lines 16-24. However, that passage fails to suggest anything other than collecting statistics at rates consistent with the SLA. Further, there would be no justification for monitoring and analyzing in real time where the response is to dispatch a field technician because the field technician could require orders of magnitude more time to respond than even a non-real-time automated system."

Examiner's response:

Weldon teaches at col. 11, line 34-42, "This may include dispatching a trouble-shooting technician to identify a source of the problem or adjusting the software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network. The corrective action may also include providing a refund to a client, if the service level agreement statistics were in fact below the required level. After step 523 the process then repeats so as to continue the SLA statistic collection and analysis operation."

Thus, Weldon teaches the SLA statistic collection and analysis operation."

And as stated above, Weldon offers an alternative that does not require manual intervention which is " or adjusting software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network.

Applicant's argument:

"Claims 12 and 24 are rejected on the same grounds as claim 1. Since claims 12 and 24 have been amended to recite distinguishing limitations which correspond to the amendment of claim 1, the same arguments presented above apply to claims 12 and 24, and their dependent claims. Claim 35 already recited a similar limitation: "interacting with a service provider via the peer-to-peer interface to negotiate "replacement" services for a breach of the SLA; interacting with various network elements to rectify a breach of the SLA." Withdrawal of the rejections of claims 12 and 14-38 is therefore requested."

Examiner's response:

Please refer to Examiner's response for claim 1 above.

Applicant's argument:

"The Office provided an additional reference (same assignee as this application) which is cited as being of concern to the Examiner. Since the reference appears to be an unpublished provisional patent application, it does not qualify as prior art. Further, the document describes network management from the Carrier's perspective (See Abstract), rather than from the customer's perspective. Specifically, the teaching is focused on avoiding SLA breach, not identifying SLA breach and signaling to the

Carrier's network to obtain replacement services. Therefore, the reference should not be of concern to the Examiner."

Examiner's response:

Examiner had requested the applicant to refer to Lo et al. (US2002/015914 A1). (Provisional Application Copy is provided herewith.) for the following reasons:

Reference to Figs. 1-3, please note the explicit definition of "Node" provided in para. [0024] and shown in Fig. 6, elements A-E. The "Node" , such as "X", as shown in Fig. 2, employs "router, Optical switch and controller", and as stated in para. [0032] As indicated above, functions of the controllers 10 can be divided into two categories, namely intra-layer functions and inter-layer functions. Regarding inter-layer functionality, the controllers 10 provide a network with intelligent dynamic resource management between a service node (i.e. a node of the layer-3 network) and a facility node (i.e. a node of the layer-1 network). Regarding the intra-layer functionality of the controllers 10, at the service node layer, each of the controllers 10 has information pertaining to the service level agreements (SLAs), by way of the policy information, and manages resources at this layer to meet the SLAs.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless-

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7, 9-12, 14-19, 21-31 and 33-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Weldon et al. (hereinafter Weldon) (US 6, 366, 563 B1)

Referring to claim 1,

Weldon teaches an optical service agent operating at an optical switched router for managing a service level agreement (SLA) for a user in an optical communication network, the optical service agent (Fig. 2, element 207) comprising:

a user-to-network interface (UNI) for interfacing the user at the optical switched router with the optical communication network; (Fig. 4, element 415)

authentication logic for controlling access by the user to the UNI; (col. 9, line 21-26)

a peer-to-peer interface for interfacing with peer users; (col. 5, line 56-col. 6, line 11) and

optical service logic, coupled to the UNI and the peer-to-peer interface, for managing the optical communication network in accordance with said SLA for the user, wherein the optical switched router includes an optical switch coupling a plurality of incoming optical interface to a plurality of outgoing optical interfaces using optical switching logic controlled by the logic for managing connections. (col. 2, line 4-22, "VPNs, and in particular Internet VPNs, often choose to employ tunneling technology as a way to securely transfer data between two similar networks (e.g., private LANs) over an intermediate network such as UUNET net IP network. Tunneling (sometimes referred to as "encapsulation") encloses a first data packet in a new packet by

appending a new header (transmitted in an unencrypted format) to the first data packet, so the network routes the new packet based on the information contained in the new header. The first data packet is usually encrypted when contained in the new data packet so no information can be gleaned from it, except by the intended recipient. The encapsulated packets travel through the network until they reach the destination identified in the new header. At the destination, the new header is stripped away and the first data packet is decrypted and processed. The tunneling and encryption may employ DES and 3DES standards-based technology for transferring data between network locations more securely via an OC-48 TCP/IP infrastructure, for example."

Thus, "tunneling technology " is used for LAN to securely transfer the data over an intermediate network such as UUNET net IP network which is "an OC-48 TCP/IP infrastructure." Also evidently, Weldon substantiates tunneling at col. 5, line 55-col. 6, line 11 and col. 6, line 54-67.

col. 6, line 29-53, col. 5, line 5-37, col. 9, line 21-26, "While encryption may be employed to improve information privacy, encryption need not be employed and thus is an optional feature, selected by a customer when subscribing to the VPN service. The source VPN probing router 207 may also employ multi-protocol label switching that prioritizes packets through the core communication network 217." Thus Weldon teaches "encryption for tunneling through OC-48 infrastructure" that is "optical" as stated in "a.", and an optical switched router including an optical switch coupling a plurality of incoming optical interface to a plurality of outgoing optical interfaces using optical switching logic controlled by the logic for managing connections." by employing "multi-

protocol label switching that prioritizes packets through the core communication network 217.", as stated in "b.". Keep in mind that "prioritizing packets" is related to SLA.) wherein the optical service logic is operably coupled to interact with a service provider network to cause the service provider network to provide replacement services without manual intervention in response to a breach of the SLA (Weldon teaches at col. 6, line 54-67, "The VPNOC 221 hosts the QVPN builder, which is a software-based mechanism used to configure VPN topology, set security profiles and distribute keys to each VPN site in an automatic fashion. Consequently, adding new VPN sites or adding more tunnels to the VPN is quickly performed since all of the probing routers may be adjusted in operation by control instructions sent from the QVPN builder. Accordingly, network operators do not need to manually secure IPSec tunnels for each of the IP nodes required to communicate over the VPN. By employing the VPN builder in the network architecture as shown with the use of VPN probing routers 207 and 203 and other probing routers, it is possible to easily scale a VPN according to customer requirements.

And as stated in the above arguments that column 11, lines 21-42 of Weldon offers an alternative that does not require manual intervention which is " or adjusting software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network.

Thus, Weldon does teach "to provide replacement services without manual intervention.").

Referring to claim 2,

Weldon teaches the optical service agent of claim 1, wherein the optical communication network comprises an automatically switched optical/transport network (ASON). and wherein the UNI comprises an ASON UNI. (col. 9, line 7-12," The probing operations are performed on the network 217 at **layer 3** i.e., Er layer). Thus, the operation is performed independent of the physical and data link layers and thus may be used in any one of a variety of different network configurations such as frame relay, ATM, FDDI, packet-over SONET, Ethernet, fiber channel as well as others.")

Referring to claim 3,

Weldon teaches the optical service agent of claim 1, wherein the optical service logic is operably coupled to monitor and analyze a connection in real-time for determining SLA compliance. (col. 4, line 16-34, col. 11, line 34-42, "This may include dispatching a trouble-shooting technician to identify a source of the problem or adjusting the software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network. The corrective action may also include providing a refund to a client, if the service level agreement statistics were in fact below the required level. After step 523 the process then repeats so as to continue the SLA statistic collection and analysis operation.")

Referring to claim 4,

Weldon teaches the optical service agent of claim 1, wherein the optical service logic is operably coupled to gather and maintain statistical information relating to a connection. (col. 21-42)

Referring to claim 5,

Weldon teaches the optical service agent of claim 4, wherein the optical service logic is operably coupled to analyze the statistical information off-line for determining SLA compliance, patterns, and trends. (col. 11, line 21-42)

Referring to claim 6,

Weldon teaches the service agent of claim 1 wherein the optical service logic is operably coupled to interact with a service provider to enforce penalty provision in the SLA. (col. 11, line 21-42)

Referring to claim 7,

Weldon teaches the optical service agent of claim 1, wherein the optical service logic is operably coupled to interact with a service provider to negotiate a credit for services not provided by the service provider in accordance with the SLA. (col. 11, line 21-42)

Referring to claim 9 , 10 and 11,

Weldon teaches the optical service agent of claim 1, wherein the optical service logic is operably coupled to interact with various network elements to rectify a breach of the SLA, and wherein the optical service logic is operably coupled to interact with to interact with the service provider lo dynamically modify the SLA based upon changing user requirements, and . wherein the optical service logic is operably coupled to interface with a billing/accounting system to provide SLA-related information. (col. 11, line 21-42)

Referring to claim 12,

Claim 12 is a claim to an optical router that incorporates the functionality of the optical service agent of claim 1. Therefore, claim 12 is rejected for the reasons set forth for claim 1.

Referring to claim 14,

Claim 14 is a claim to an optical router that incorporates the functionality of the optical service agent of claim 2. Therefore, claim 14 is rejected for the reasons set forth for claim 14.

Referring to claim 15,

Claim 15 is a claim to an optical router that incorporates the functionality of the optical service agent of claim 3. Therefore, claim 15 is rejected for the reasons set forth for claim 15.

Referring to claim 16,

Claim 16 is a claim to an optical router that incorporates the functionality of the optical service agent of claim 4. Therefore, claim 16 is rejected for the reasons set forth for claim 4.

Referring to claim 17,

Claim 17 is a claim to an optical router that incorporates the functionality of the optical service agent of claim 5. Therefore, claim 17 is rejected for the reasons set forth for claim 5.

Referring to claim 18,

Claim 18 is a claim to a device that incorporates the functionality of the optical service agent of claim 6. Therefore, claim 18 is rejected for the reasons set forth for claim 6.

Referring to claim 19,

Claim 19 is a claim to an optical router that incorporates the functionality of the optical service agent of claim 7. Therefore, claim 19 is rejected for the reasons set forth for claim 7.

Referring to claims 21, 22 and 23,

Claims 21, 22 and 23 are claims to an optical router that incorporates the functionality of the optical service agent of claims 9, 10 and 11. Therefore, claims 21, 22 and 23 are rejected for the reasons set forth for claims 9, 10 and 11.

Referring to claim 24,

Claim 24 is a claim to a system that incorporates the functionality of the optical service agent of claim 1. Therefore, claim 24 is rejected for the reasons set forth for claim 1.

Referring to claim 25,

Claim 25 is a claim to a system that incorporates the functionality of the optical service agent of claim 2. Therefore, claim 25 is rejected for the reasons set forth for claim 2.

Referring to claim 26,

Claim 26 is a claim to a system that incorporates the functionality of the optical service agent of claim 3. Therefore, claim 26 is rejected for the reasons set forth for claim 15.

Referring to claim 27,

Claim 27 is a claim to a system that incorporates the functionality of the optical service agent of claim 4. Therefore, claim 27 is rejected for the reasons set forth for claim 4.

Referring to claim 28,

Claim 28 is a claim to a system that incorporates the functionality of the optical service agent of claim 5. Therefore, claim 28 is rejected for the reasons set forth for claim 5.

Referring to claim 29,

Claim 29 is a claim to a system that incorporates the functionality of the optical service agent of claim 6. Therefore, claim 29 is rejected for the reasons set forth for claim 6.

Referring to claim 30,

Claim 30 is a claim to a system that incorporates the functionality of the optical service agent of claim 7. Therefore, claim 30 is rejected for the reasons set forth for claim 7.

Referring to claim 31,

Claim 31 is a claim to a system that incorporates the functionality of the optical service agent of claim 8. Therefore, claim 31 is rejected for the reasons set forth for claim 8.

Referring to claims 33 and 34,

Claims 33 and 34 are claims to a system that incorporates the functionality of the optical service agent of claims 10 and 11. Therefore, claims 33 and 34 are rejected for the reasons set forth for claims 10 and 11.

Referring to claim 35,

Weldon teaches a method for managing service level agreements in an optical communication system at an optical switched router, wherein the optical switched router includes a plurality of incoming optical interfaces, a plurality of outgoing optical interfaces and an optical switch coupling the plurality of incoming optical interfaces to the plurality of outgoing optical interfaces, the method comprising at least one of: (col. 2, line 4-22, "VPNs, and in particular Internet VPNs, often choose to employ tunneling

technology as a way to securely transfer data between two similar networks (e.g., private LANs) over an intermediate network such as UUNET net IP network. Tunneling (sometimes referred to as "encapsulation") encloses a first data packet in a new packet by appending a new header (transmitted in an unencrypted format) to the first data packet, so the network routes the new packet based on the information contained in the new header. The first data packet is usually encrypted when contained in the new data packet so no information can be gleaned from it, except by the intended recipient. The encapsulated packets travel through the network until they reach the destination identified in the new header. At the destination, the new header is stripped away and the first data packet is decrypted and processed. The tunneling and encryption may employ DES and 3DES standards-based technology for transferring data between network locations more securely via an OC-48 TCP/IP infrastructure, for example."

Thus, "tunneling technology " is used for LAN to securely transfer the data over an intermediate network such as UUNET net IP network which is "an OC-48 TCP/IP infrastructure." Also evidently, Weldon substantiates tunneling at col. 5, line 55-col. 6, line 11 and col. 6, line 54-67.

col. 6, line 29-53, col. 5, line 5-37, col. 9, line 21-26, "While encryption may be employed to improve information privacy, encryption need not be employed and thus is an optional feature, selected by a customer when subscribing to the VPN service. The source VPN probing router 207 may also employ multi-protocol label switching that prioritizes packets through the core communication network 217." Thus Weldon teaches "encryption for tunneling through OC-48 infrastructure" that is "optical" as stated in "a.",

and an optical switched router including an optical switch coupling a plurality of incoming optical interface to a plurality of outgoing optical interfaces using optical switching logic controlled by the logic for managing connections." by employing "multi-protocol label switching that prioritizes packets through the core communication network 217.", as stated in "b.". Keep in mind that "prioritizing packets" is related to SLA.)

, the method comprising at least one of:

authenticating a request for communication services at a user-to-network interface (UNI) of the optical switched router. the request including a service level agreement (SLA);

monitoring and analyzing the connection in real-time for determining SLA compliance using a peer-to-peer interface of the optical-switched router; (col. 9, line 21-26)

gathering and maintaining statistical information relating to a connection;

analyzing statistical information off-line for determining SLA compliance, patterns, and trends (col. 11, line 34-42, "This may include dispatching a trouble-shooting technician to identify a source of the problem or adjusting the software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network. The corrective action may also include providing a refund to a client, if the service level agreement statistics were in fact below the required level. After step 523 the process then repeats so as to continue the SLA statistic collection and analysis operation."

Thus, Weldon teaches the SLA statistic collection and analysis operation.");

interacting with a service provider via the peer-to--peer interface to enforce penalty provisions in the SLA;

interacting with a service provider via the peer to peer interface to negotiate a credit for services not provided by the service provider in accordance with the SLA (col. 11, line 21-42);

interacting with a service provider via the peer-to-peer interface to negotiate "replacement" services for a breach of the SLA (Weldon teaches at col. 6, line 54-67, "The VPNOC 221 hosts the QVPN builder, which is a software-based mechanism used to configure VPN topology, set security profiles and distribute keys to each VPN site in an automatic fashion. Consequently, adding new VPN sites or adding more tunnels to the VPN is quickly performed since all of the probing routers may be adjusted in operation by control instructions sent from the QVPN builder. Accordingly, network operators do not need to manually secure IPSec tunnels for each of the IP nodes required to communicate over the VPN. By employing the VPN builder in the network architecture as shown with the use of VPN probing routers 207 and 203 and other probing routers, it is possible to easily scale a VPN according to customer requirements.

And as stated in the above arguments that column 11, lines 21-42 of Weldon offers an alternative that does not require manual intervention which is " or adjusting software settable parameters in the probing router, so as to be less stringent on the service level requirements imposed on the network.

Thus, Weldon does teach "to provide replacement services without manual intervention.");

interacting with various network elements to rectify a breach of the SLA;

interacting with the service provider to dynamically modify the SLA based upon changing user requirements;

controlling the optical switch of the optical router in response to the SLA; and

interfacing with a billing/accounting system to provide SLA-related information. (col. 11, line 21-42)

Referring to claim 36,

Weldon teaches the method of claims 35. wherein monitoring and analyzing a connection in real-time for determining SLA compliance comprises at least one of:

monitoring the integrity of the connection to verify that the connection meets certain SLA criteria;

monitoring traffic on the connection to verify that the connection meets certain SLA criteria;

querying a core optical communication network in order to obtain information compiled by the core optical communication network for verifying that the connection meets certain SLA criteria; and

querying in order to obtain information compiled by the peer users for verifying that the connection meets certain SLA criteria. (col. 11, line 21-42)

Referring to claim 37,

Weldon teaches the method of claim 35, wherein interacting with various network elements to rectify a breach of the SLA comprises at least one of:

re-requesting the connection; and notifying a service provider of the SLA breach (col. 4, line 15-32, col. 8, line 62-col. 9, line 6); and orchestrating various network changes to resolve or work around the SIA breach.

Referring to claim 38,

Weldon teaches the method of claim 35, wherein interacting with the service provider to dynamically modify the SLA based upon changing user requirements comprises:

determining changing requirements of the user; and

dynamically re-negotiating the SLA to meet the changing requirements of the user. (col. 6, line 29-53)

Additional Reference of Concern to Examiner

Examiner would like to request the applicant to refer to Lo et al. (US2002/015914 A1). (Provisional Application Copy is provided herewith.)

Reference to Figs. 1-3, please note the explicit definition of "Node" provided in para. [0024] and shown in Fig. 6, elements A-E. The "Node" , such as "X", as shown in Fig. 2, employs "router, Optical switch and controller", and as stated in para. [0032] As indicated above, functions of the controllers 10 can be divided into two categories, namely intra-layer functions and inter-layer functions. Regarding inter-layer functionality, the controllers 10 provide a network with intelligent dynamic resource management between a service node (i.e. a node of the layer-3 network) and a facility node (i.e. a node of the layer-1 network). Regarding the intra-layer functionality of the controllers 10, at the service node layer, each of the controllers 10 has information

pertaining to the service level agreements (SLAs), by way of the policy information, and manages resources at this layer to meet the SLAs.

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 6:30 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan A. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp
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Ashok Patel
Examiner
AU 2154